



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,722	04/30/2001	Kazuya Sakamoto	35.G2786	9435

5514 7590 08/24/2005

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

RAHIMI, IRAJ A

ART UNIT PAPER NUMBER

2622

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/843,722

Applicant(s)

SAKAMOTO, KAZUYA

Examiner

(Iraj) Alan Rahimi

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14 and 16-24 and 26-39 is/are rejected.
- 7) ☒ Claim(s) 5, 15 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date Feb 3, 2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 3, 6, 7, 9, 11, 13, 16, 17, 19, 21, 23, 26, 27, 29 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Oyanagi (US patent application 2001/0021039).

3. Regarding claim 1, Oyanagi discloses a printer apparatus comprising:  
detection means for detecting an interface disconnection state (paragraph 50-51); and

Art Unit: 2622

control means for performing control processing in which, when said detection means detects the interface disconnection state during a printing process, the printing is terminated and paper is discharged (paragraph 58 and Fig. 13).

Regarding claims 11, 21 and 31, arguments analogous to those presented for claim 1, are presented.

Regarding claim 3, printer apparatus according to Claim 1, wherein, when said control means detects disconnection of an interface being used during the printing process, said control means performs control processing in which the printing is immediately terminated and the printed paper is discharged (paragraph 50-51 and 58 and Fig. 13).

Regarding claims 13 and 23, arguments analogous to those presented for claim 3, are presented.

Regarding claim 6, Oyanagi discloses a printer apparatus according to Claim 1, wherein said control means determines, in accordance with a specified control command received from a host unit to which said printer apparatus is linked, whether or not control processing is performed interface-disconnection in response to the detection of the state by said detection means (paragraph 68).

Art Unit: 2622

Regarding claims 6 and 26, arguments analogous to those presented for claim 63, are presented.

Regarding claim 7, Oyanagi discloses a printer apparatus according to Claim 1, wherein said control means determines, in accordance with a specified input from an operation unit provided in said printer apparatus whether or not control processing is performed in response to the detection of the interface-disconnection state by said detection means (paragraph 68).

Regarding claims 17 and 27, arguments analogous to those presented for claim 7, are presented.

Regarding claim 9, Oyanagi discloses a printer apparatus according to Claim 1, wherein:  
a Universal Serial Bus interface is used;  
and when said Universal Serial Bus interface is suspended during the printing process, said detection means regards the situation as a state in which said Universal Serial Bus interface is disconnected (paragraph 61).

Regarding claims 19 and 29, arguments analogous to those presented for claim 9, are presented.

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 12, 22, 32, 34, 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyanagi (US patent application 2001/0021039) in view of the instant application.

Regarding claim 2, Oyanagi does not disclose a printer apparatus according to Claim 1, wherein said printer apparatus is linked to a plurality of host units via a plurality of interfaces but discloses when said control means detects the interface-disconnection state while print data from one of the host units is being printed, said control means performs control processing in which the printing is terminated the paper is discharged and print data is received from another one of the interfaces and is printed (paragraph 58 and Fig. 13).

Specification on page 2 of the instant application discloses in the background that is known to have a printer with plurality of interfaces connected to plurality of hosts units where switching is performed between interfaces to select one interface.

Therefore it would have been obvious at the time of invention to have a printer with multiple interfaces where one interface is disconnected the printing is terminated and paper is discharged and print data is received by another interface.

Art Unit: 2622

Regarding claims 12 and 22, arguments analogous to those presented for claim 2, are presented.

Regarding claim 32, 34, 36 and 38 arguments analogous to those presented for claim 1 and 2, are presented.

6. Claims 4, 8, 10, 14, 18, 20, 24, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyanagi in view of Tachibana (US patent 5,877,869).

Regarding claim 4, Oyanagi does not disclose a printer apparatus according to Claim 1, further comprising a receiving buffer for storing print data received from a host unit to which said printer apparatus is linked, wherein, when said detection means detects the interface-disconnection state caused by an interface being used during the printing process, said control means performs control processing in which, after printing all print data remaining in said receiving buffer the printing is terminated and the printed paper is discharged.

Tachibana discloses print data buffer 9 for storing print data and printing the data from buffer when there is interface interruption for the print data (column 4, lines 51-67).

Oyanagi and Tachibana are combinable because they are from the same field of endeavor that is image reproduction and handling during print data interruptions.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to have a buffer in the printer to print out the incoming data.

The suggestion/motivation for doing so would have been to prevent loss of the print data when the data communication is interrupted.

Therefore, it would have been obvious to combine Oyanagi and Tachibana to obtain the invention as specified in claim 4.

Regarding claims 14 and 24, arguments analogous to those presented for claim 4, are presented.

Regarding claim 8, Tachibana discloses a printer apparatus according to Claim 1, wherein:

a Centronics interface is used (column 5, lines 14-23);

and when no control command from a host unit to which said printer apparatus is linked is received via said Centronics interface during a predetermined period during the printing process, said detection means regards the situation as a state in which said Centronics interface is disconnected (column 5, lines 14-38).

Regarding claims 18 and 28, arguments analogous to those presented for claim 8, are presented.

Regarding claim 10, arguments analogous to those presented for claim 8, are presented. It is obvious to a person ordinary skill in the art at the time of invention to use a packet-communication interface like IEEE 1394 in addition to Centronics or USB interface.



Regarding claims 20 and 30, arguments analogous to those presented for claim 10, are presented.

7. Claim 33, 35, 37 and 39 are rejected under 35 U.S.C. 03(a) as being unpatentable over Oyanagi (US patent application 2001/0021039) in view of Dina et al. (US patent 6,055,062).

Regarding claim 33, Oyanagi does not disclose a printer apparatus according to Claim 32, wherein the select interface is wireless interface.

Dina discloses that the selected interface is a wireless interface (abstract), and Oyanagi discloses notifying said printer apparatus of an error state when said error state occurs; and said detection means detects said error state in response to the error-state notification (Fig. 13). The error state is considered to be unplugging the printer.

Regarding claims 35, 37 and 39, arguments analogous to those presented for claim 33, are presented.

***Allowable Subject Matter***

8. Claims 5, 15 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Other Prior Art Cited***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okuyama (US patent 6,028,985) discloses multiple hosts connected to different printer interfaces.

Doumoto et al. (US patent 4,898,094) discloses apparatus and method for controlling a plurality of continuous paper printing machines and interconnect between them.

Yamada et al. (US patent application publication 2004/0252236) discloses in paragraphs 44 and 45 discharging paper after getting print interruption.

***Contact Information***


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 571-272-7411. The examiner can normally be reached on Mon.-Fri. 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alan Rahimi  
August 22, 2005



TWYLER LAMB  
PRIMARY EXAMINER